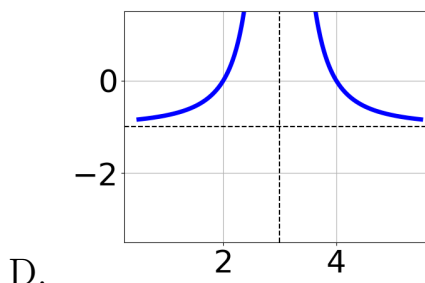
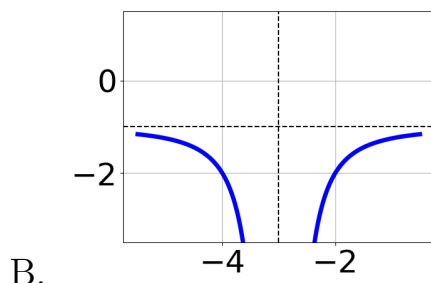
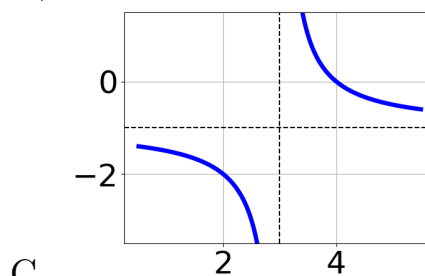
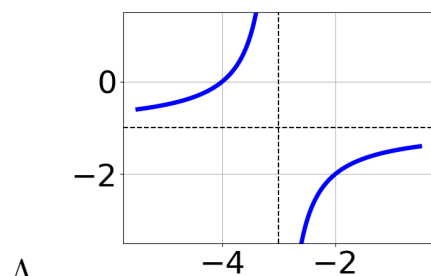


1. Choose the graph of the equation below.

$$f(x) = \frac{-1}{x+3} - 1$$



- E. None of the above.

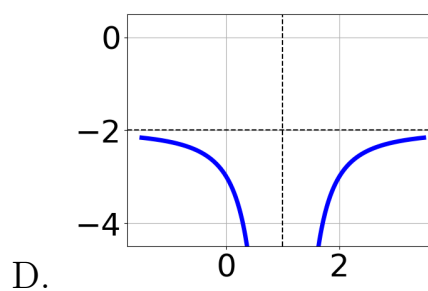
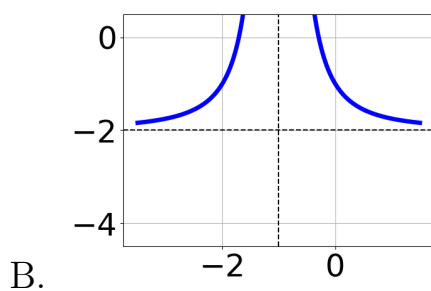
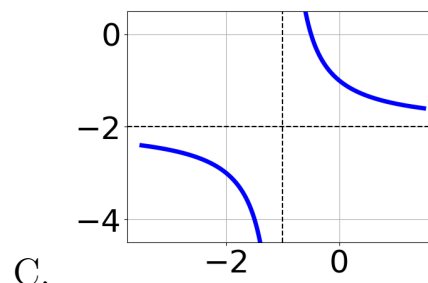
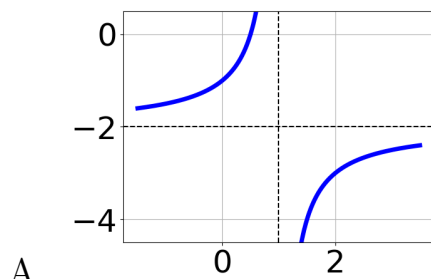
2. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{56}{70x - 70} + 1 = \frac{56}{70x - 70}$$

- A. $x \in [-2, 0]$
 B. All solutions lead to invalid or complex values in the equation.
 C. $x_1 \in [-2, 0]$ and $x_2 \in [-1, 3]$
 D. $x_1 \in [0, 2]$ and $x_2 \in [-1, 3]$
 E. $x \in [1.0, 2.0]$

3. Choose the graph of the equation below.

$$f(x) = \frac{1}{x+1} - 2$$



E. None of the above.

4. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{2}{4x+4} + -8 = \frac{5}{24x+24}$$

- A. $x_1 \in [-1.09, -0.57]$ and $x_2 \in [-0.96, 5.04]$
 B. All solutions lead to invalid or complex values in the equation.
 C. $x_1 \in [-1.15, -1.01]$ and $x_2 \in [-1.96, 0.04]$
 D. $x \in [-1.96, 0.04]$
 E. $x \in [0.38, 1.12]$

5. Determine the domain of the function below.

$$f(x) = \frac{6}{30x^2 - 39x + 12}$$

- A. All Real numbers except $x = a$, where $a \in [17.92, 18.17]$
 B. All Real numbers except $x = a$ and $x = b$, where $a \in [0.29, 0.5]$ and $b \in [0.56, 0.94]$

- C. All Real numbers except $x = a$, where $a \in [0.29, 0.5]$
 - D. All Real numbers.
 - E. All Real numbers except $x = a$ and $x = b$, where $a \in [17.92, 18.17]$ and $b \in [19.87, 20.04]$
-

6. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{2x}{-5x - 7} + \frac{-6x^2}{35x^2 + 84x + 49} = \frac{-3}{-7x - 7}$$

- A. All solutions lead to invalid or complex values in the equation.
 - B. $x_1 \in [-1.32, -0.99]$ and $x_2 \in [-3.06, -1.77]$
 - C. $x_1 \in [-1.85, -1.34]$ and $x_2 \in [-2.03, -0.18]$
 - D. $x \in [-1.85, -1.34]$
 - E. $x \in [-1.32, -0.99]$
-

7. Determine the domain of the function below.

$$f(x) = \frac{5}{12x^2 - 25x + 12}$$

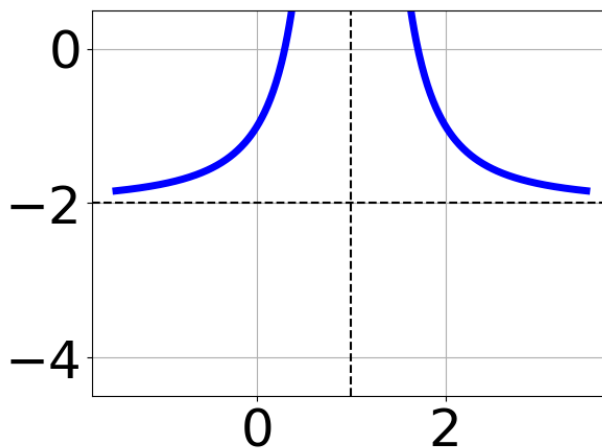
- A. All Real numbers except $x = a$ and $x = b$, where $a \in [-0.52, 0.88]$ and $b \in [0.86, 1.81]$
 - B. All Real numbers except $x = a$ and $x = b$, where $a \in [10.75, 13.23]$ and $b \in [10.75, 13.23]$
 - C. All Real numbers.
 - D. All Real numbers except $x = a$, where $a \in [10.75, 13.23]$
 - E. All Real numbers except $x = a$, where $a \in [-0.52, 0.88]$
-

8. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{-5x}{-5x-5} + \frac{-3x^2}{-10x^2+25x+35} = \frac{-7}{2x-7}$$

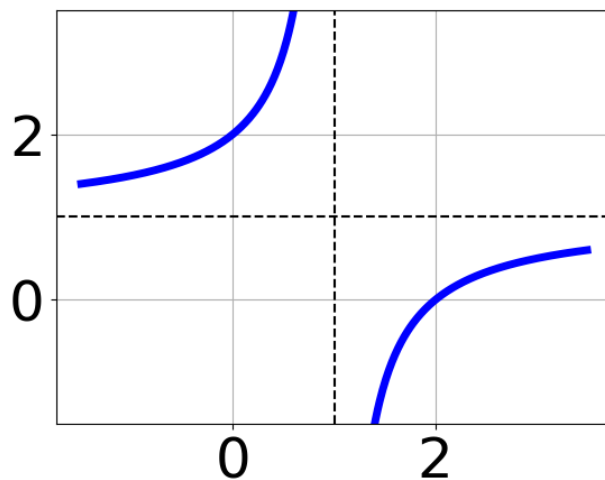
- A. $x_1 \in [-2.01, -0.31]$ and $x_2 \in [1.5, 5.5]$
B. $x \in [3.05, 3.68]$
C. All solutions lead to invalid or complex values in the equation.
D. $x \in [-2.01, -0.31]$
E. $x_1 \in [1.91, 2.47]$ and $x_2 \in [-3.24, -0.24]$
-

9. Choose the equation of the function graphed below.



- A. $f(x) = \frac{-1}{x+1} + 2$
B. $f(x) = \frac{1}{x-1} + 2$
C. $f(x) = \frac{1}{(x-1)^2} + 2$
D. $f(x) = \frac{-1}{(x+1)^2} + 2$
E. None of the above
-

10. Choose the equation of the function graphed below.



A. $f(x) = \frac{-1}{x-1} + 1$

B. $f(x) = \frac{-1}{(x-1)^2} + 1$

C. $f(x) = \frac{1}{x+1} + 1$

D. $f(x) = \frac{1}{(x+1)^2} + 1$

E. None of the above